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ABSTRACT

Components of the Proficiency Testing System (PTS) designed for the Central Valley School District, Washington, are described. Components are: (1) progress assessment, consisting of norm referenced tests, writing samples, diagnostic tests, and ability checklists; (2) user assistance, including an objectives manual, inservice workshop, and a recordkeeping system; (3) essential skills, consisting of criterion referenced tests and a remedial instruction program; (4) area competencies, comprised of achievement tests in areas such as science and health, and short remedial courses; (5) survival skills -- test measuring a student's ability to function in modern society; and (6) gifted and talented identification procedures. This system assures compliance with Washington state's Student Learning Objectives Law and extends the Program beyond mandated minimum requirements. A checklist of potential problems in implementing PST is given and includes consideration of transfer students, integration of testing and remediation with special programs, protection of students' legal rights, assurance of the absence of test bias, administration of the test to absent, and physically or emotionally handicapped students, solicitation of parental and community support, determination of the relationship between PTS scores and eligibility for high school diplomas. (MH)

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Northwest Regional
Educational Laboratory

# Development of a Comprehensive Proficiency Testing System

Presented at the 1979 Annual Meeting
of the American Educational Research Association

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# A LONG RANGE PLAN FOR THE DEVELOPMENT OF A COMPREHENSIVE PROFICIENCY TESTING SYSTEM

## I. INTRODUCTION

### A. The Role of Testing in the Schools

Consider what the optimum teaching situation might be. Perhaps one pupil with each teacher. Or perhaps one teacher with 30 pupils of identical ability. In these settings, a teacher could easily ascertain the skills of each student.

But real life teaching is more demanding. A teacher is assigned a variety of students who have different backgrounds, abilities and instructional experiences. Instruction directed toward the average often misses more pupils than it reaches.

The situation rarely improves when the student leaves school. Almost everyone has encountered the store clerk who cannot add or the secretary who cannot spell. Graduation from the twelfth grade is seldom an accurate measure of achievement. The same diploma is issued to the student struggling to do the work others mastered in the sixth grade and to the gifted student who could easily do college-level work.

Imagine a ruler with only one number on it: twelve. Imagine also that the mark to indicate 12 is very, very wide. Such an instrument would quickly be discarded for providing meaningless measurements. This is somewhat the situation today with the high school diploma. In order that the diploma might be a more meaningful award, state after state rushes to make graduation contingent upon some sort of competency testing. Indeed,

testing is the method whereby marks are added to our measuring instrument. But one might legitimately ask, aren't these competency tests just replacing the wide mark at grade 12 with an equally wide mark at, say, 70 percent? It certainly seems that way.

The key, both to making rulers and measuring educational accomplishments, is to have a sufficient number of measurement points available, and to make these points as well defined and precise as possible. A testing program should not have just one test. Different tests should be used to measure achievement at different points during a student's education. A contractor building a house makes many measurements during the building process. The more complicated task of educating a student also requires many measurements as the work progresses.

Educational testing has drawn substantial criticism in recent years, much of it justified. Those who claim that testing has not produced substantial educational benefits are, unfortunately, correct in many cases. The most common shortcoming is the failure to relate test results to the educational process. But you'll find considerable support for testing systems that are well integrated with established educational goals, that give information useful for instructional planning and evaluation, and that assess student performance in time to adequately remediate student deficiencies.

The Proficiency Testing System (PTS) designed for the Central Valley School District and detailed in this plan would be an important addition to the district's educational process. If implemented as designed, the Central Valley PTS promises to be one of the most comprehensive, useful student assessment programs in existence. The components of this system are described in the following sections.

B. The Student Learning Objectives Law

Washington Senate Bill 3026, as amended in House Bill 697, has become known as the Student Learning Objectives (SLO) Law. This law requires school districts within the state to identify the objectives which guide their instructional programs, and specify or develop a means of assessing student attainment of those objectives. Reading, language arts, and mathematics objectives for kindergarten through grade eight are the initial focus of the law, but by the mid-1980s, all grades and curricular areas will have to be covered.

The SLO Law is similar to legislation or policy developed earlier in several other states. Thus, some predictions can be made about the objectives and instruments which will be found in Washington:

1. The quantity, quality, and specificity of the objectives developed will vary dramatically among districts.

2. The assessment instruments will vary in quality and construction, so much so that some districts will not obtain meaningful information.

3. Some districts will do the minimum necessary to meet the requirements of the law, notably using commercially available objective lists and assessment instruments. In some cases this will be inappropriate.

4. The technical experience and expertise to develop a useful objective-referenced testing system does not exist in all districts in the state. Therefore, some districts will not develop successful testing programs.

5. Some districts will develop adequate objectives and instruments, but will not successfully integrate these into the instructional process.

6. The resources needed to conduct an adequate multigrade assessment across subject areas are much greater than might be expected. The fact that the SLO Law provides no additional funds or personnel

means that many district will not have adequate developmental resources, since they will not choose to allocate sufficient resources of their own. Also, many districts will underestimate (or neglect entirely) the instructional resources needed to make the program a success.

7. Not all districts will develop valid and reliable assessment instruments; even fewer will analyze their instruments to demonstrate approporiate reliability and validity.

The Student Learning Objectives Law provides districts the opportunity to develop and establish useful systems of objectives and objective-based assessment instruments. Yet many districts will view the law as a burden. Only a few districts will develop objective and testing systems which will become valued parts of the district's overall instructional program.

C. The Central Valley Approach

Discussions with the Central Valley School District staff indicate that the district is interested in going beyond the basic requirements of the SLO Law. In fact, it has chosen to develop an objectives and testing system that can benefit the district's entire instructional process, and thus increase student learning. District personnel appear to be aware of the resources necessary to develop an appropriate testing system and may choose to allocate those resources given the promise of definite instructional advantages.

Central Valley has already surpassed most districts in terms of student assessment by objective. The district's innovative "report card" system and its unique individual diagnostic testing program in reading are two examples. Staff within the district are already familiar with

educational objectives; their knowledge will be helpful in dealing with the Student Learning Objectives Law.

This long range plan was developed to describe an example of a comprehensive testing system that could be implemented within the district.

## II. OVERVIEW OF THE PROPOSED SYSTEM

### A. Listing of Components

The Central Valley Proficiency Testing System (PTS) has several components:

- A Progress Assessment Component
- A User Assistance Component
- An Essential Skills Component
- An Area Competencies Component
- A Survival Skills Component
- A Gifted and Talented Component

These components could be developed and implemented individually or in any combination. Development and implementation of all or most components would give Central Valley one of the most innovative and comprehensive testing programs in existence. Following is a brief description of the components; detailed descriptions are provided in following sections.

1. The Progress Assessment Component consists of a series of norm-referenced tests in reading and mathematics; a writing sample and associated scoring procedures; a diagnostic test battery in reading, math and language arts; and a series of ability checklists to be used with kindergarten and grade one students.

2. The User Assistance Component consists of an objectives manual, a series of staff inservice training workshops, and a recordkeeping system.

3. The Essential Skills Component consists of a criterion-referenced test covering the most important of the basic skills, and a remedial program designed to ensure that all students master the essential competencies.

4. The Area Competencies Component consists of a series of tests to measure achievement of the most important skills and concepts in such areas as science, health, and social studies and a group of short remedial courses to provide instruction on these skills and concepts.

5. The Survival Skills Component consists of a survival skills test designed to measure a student's ability to function in modern society, and a series of survival kits for independent use by students needing further study.

6. The Gifted and Talented Component consists of a process for identifying gifted and talented students, and procedures for ensuring that they receive appropriate educational opportunities. (Note: This component is not directly related to the other PTS components and is discussed separately.)

Any of these components would prove a useful additional to the district's educational process. If all were implemented as a system, the result would be a comprehensive testing process capable of providing information at all grade levels in all major subjects. Such test result data could then be integrated into the district's educational process, where its impact on instruction could generate a corresponding increase in student abilities.

## B. Assessing Performance of a Central Valley Student

In order to better understand how a comprehensive testing system might work, let us examine the progress of Mark, a hypothetical Central Valley student, through his 13 years of schooling in the district.

In kindergarten, Mark saw little evidence of the PTS. However, as the end of his first year in school approached, Mark's teacher used an ability checklist to summarize the skills Mark possessed at the end of kindergarten. On occasion, the teacher would ask Mark to perform some task, like telling time; other times she would make judgments based on her observations over the year.

When Mark entered first grade, the ability checklist from kindergarten went with him. The PTS is, in large part, designed to prevent students from falling behind in their education by pinpointing exact deficiencies so that remediation can take place immediately. According to the checklist, there were a few kindergarten level skills which Mark had not yet mastered. Mark's first grade teacher became responsible for ensuring that Mark mastered those missing skills over the course of the year. With his teacher's help, he was able to do so.

At the end of first grade, another ability checklist was used to identify weaknesses in Mark's learning up to that point. As before, this information went to Mark's next teacher, who became responsible for eliminating those weaknesses. The kindergarten and first grade ability checklists formed the start of a permanent record that would follow Mark throughout his schooling in the district.

In the spring of Mark's second grade year, he and his classmates took a test to measure reading and mathematics ability. The test was designed to identify students most in need of additional instruction in the coming year. Of course, the district would have preferred to give special assistance to every student, but available resources, notably teachers' time, were limited. Faced with the need to make a decision, the district

gave priority to preventing slower students from falling behind because they could not learn effectively. Through discussions among teachers, administrators, and interested citizens, it was determined that teachers could give specialized instruction to 30 percent of the district's third graders.

Mark's scores on this test were compared with those of other district second graders. His scores showed that while he performed better than the average district second grader in reading, his math ability was in the bottom quarter of the sample group. As a result of his low math score, Mark was asked to take, just prior to the start of the school year, a diagnostic math test that would determine which mathematics objectives he had not mastered. This precise diagnostic information was given to his third grade tacher, who then became responsible for seeing that Mark learned the specified skills.

When Mark took the norm-referenced reading and math tests, he also prepared a writing sample. Over the summer, his writing was scored by teachers on the basis of spelling, grammar, punctuation, and other basic language arts skills. Mark's writing was judged about average, but had it been in the lower 30 percentile, he would have been asked to take a diagnostic test to pinpoint the language arts objectives on which he needed further instruction.

This testing process continued in grades three, four, five, six and seven. Each spring Mark prepared a writing sample and took norm-referenced reading and mathematics tests. These tests were scored and analyzed over the summer and, if Mark's scores were low compared to those of other district students, he was asked to take the appropriate diagnostic test. The list of skills with which Mark needed help was passed on to his new

teacher, who was charged with providing the instruction necessary for Mark to master the related objectives. The permanent record which followed Mark throughout the grades revealed at a glance his standing with regard to the educational objectives important to the district.

In the spring of eighth grade, Mark took what the district referred to as its Essential Skills Test. This test covered objectives that district staff felt were so important that no student should be allowed to go through school without achieving an adequate level of performance on each. A series of meetings were held to determine just what should constitute adequate performance. Students who scored below that level would be enrolled in mandatory remedial classes designed to bring their performance up to an acceptable level.

Mark's score on the mathematics section of the Essential Skills Test fell slightly below the "cutoff score" established by the district. Therefore, when Mark returned to school, he was enrolled in a remedial math class where he received the instruction needed to help him achieve the essential competencies. Mark and his classmates were given an opportunity at the end of the semester and again at the end of the year to pass the Essential Skills Test. It happened that Mark passed a different form of the test after only a semester of remedial work; had he not, he would have continued in the remedial program until he passed. Any student would be given nine opportunities to pass the test before the end of high school.

In the spring of his ninth grade year, Mark was given three short Area Competency Tests. Mark took tests in health, science and career education. Each test included about 25 questions covering only the

most important skills and concepts in that area. After examining the tests, the district had established a score that they considered adequate in each area. Mark scored well on the health and career education tests, but his score on the science test was below the acceptable level.

A series of short classes (10 to 15 hours each) were held during the summer to give Mark and others who had failed Area Competency Tests an opportunity to receive further instruction. Summer sessions for each course were scheduled both during the day and at night, and were arranged so that courses would not conflict with one another. While the mini-courses were optional, students whose scores fell below the cutoff were urged to attend. Students could take an alternate form of the test at the end of the course, and all students, whether they took the course or not, could take the test each spring until they achieved an acceptable score. Mark took the summer minicourse in science and easily passed the test.

In the spring of tenth grade, Mark took four more Area Competency Tests--in citizenship, social studies, physical education and basic practical skills. (Basic practical skills was the name the district had given to the important skills one might need in adult life, like changing a flat tire or putting out a small fire.) These were not strictly paper and pencil tests; they included many applied performance items--items on which the student's performance was measured in a real or simulated setting.

The Area Competency Tests had been developed with considerable input from community members and district educators, and were constantly reviewed and modified. It was understood that over time new areas could be added, or existing areas dropped.

The Area Competency Tests dealt only with very important skills and concepts (for example, how to vote, how to write a resume, how to determine the best buy in a food store) that the educators and community members thought every student should master.

Mark passed the four tenth grade Area Competency Tests with no difficulty. Had he not passed, he would have had the opportunity to take the summer minicourses and to be retested.

When Mark returned to school for eleventh grade, he was given the district's Survival Skills Test. All the prior testing had been directly related to skills taught in school or, as in the case of physical education and basic practical skills, had been performance based tests. The Survival Skills Test, however, was a pencil and paper test dealing with life skills like reading rental contracts, buying real estate, applying for a loan, filling out common forms, and so on. Content was based on what district educators and community members felt was important to adult life. The test was divided into sections according to content area.

Mark thought the test was fun to take but it made him realize there was a good deal he didn't know. There was no "passing" score on the test (since it didn't cover skills directly taught in the district) but students who scored poorly (or even less well than they would have liked) were invited to do independent study using the "Survival Kits" designed by district staff.

Each Survival Kit covered the same content as a section of the test; for example, rental contracts and landlord-tenant rights. The kits contained a variety of materials: audio tapes, worksheets, microfiche, and so on. They were available in the school library for use by

students during free periods, lunch hours, and after school. There were three days during the year when students could retake the Survival Skills Test to improve their scores.

Because Mark had difficulty with the Use of Credit and Income Tax sections of the test, he studied the related Survival Kits on his lunch hour for a week. He retook the test the next time it was given and improved his score condiderably.

Mark and most of his classmates had completed all parts of the Proficiency Testing System by the end of eleventh grade. Thus, there was no testing for Mark during his senior year. Some of Mark's fellow seniors had just completed minicourses for the Area Competency Tests; others were using the Survival Kits to study for the Survival Skills Test. Two members of the class were still enrolled in the remedial class for the Essential Skills Test.

On graduation day, all of the district's seniors who had met the attendance and credit requirements for the district received their diplomas. Enclosed in each diploma was a separate sheet which indicated the student's attainment of adequate scores on the Essential Skills Test and Area Competency Tests. The sheet also gave overall attendance and grade information. The sheet could be kept with the diploma to serve as a general indication of the student's proficiency.

Mark's diploma showed adequate scores on all the tests. This was also the case for most of his classmates. But the purpose of the district's Proficiency Testing System was not certification; the system had had its biggest impact well before graduation. Ever since Mark entered the district, records had been kept to show the results of the PTS testing,

and the areas in which Mark needed further instruction. Remediation of Mark's educational weaknesses had always occurred before those weaknesses could become deficiencies. The system prevented any student's passing through the grades without learning the skills and concepts the district and community felt were important. Mark's parents and teachers were constantly informed about the strengths and weaknesses of his educational achievement.

Between kindergarten and graduation, Mark spent about 15,000 hours in school. Of these, about 50 hours were spent taking PTS tests. This table shows the tests Mark took during his 13 years in the district.

| Grade | Test(s) |
|---|---|
| K | None (Ability Checklist used) |
| 1 | None (Ability Checklist used) |
| 2 | Norm-referenced Test & Writing Sample* |
| 3 | Norm-referenced Test & Writing Sample* |
| 4 | Norm-referenced Test & Writing Sample* |
| 5 | Norm-referenced Test & Writing Sample* |
| 6 | Norm-referenced Test & Writing Sample* |
| 7 | Norm-referenced Test & Writing Sample* |
| 8 | Essential Skills Test |
| 9 | Area Competency Tests in science, health, and career education |
| 10 | Area Competency Tests in citizenship, social studies, physical education, and basic practical skills |
| 11 | Survival Skills Test |
| 12 | None |

*In addition, a Diagnostic Testing Battery would be administered if the student's scores on the norm-referenced test or writing sample were low.

Overall, Mark, his parents and his teachers felt that this relatively small amount of testing had significantly increased Mark's chances of success in the educational system.

This story of Mark's progress through the grades should not be considered a firm plan for a proficiency testing system. It is unlikely that any district would adopt the system detailed in this plan without modification. This hypothetical description is just one possible way in which testing could be used to monitor a student's educational progress. The system as described would be very comprehensive and useful. Nevertheless, optimum efficiency requires that any system be developed and implemented to satisfy instructional priorities within the boundaries set by the resources and policies established by the district as development progresses.

## III. DETAILED DESCRIPTION OF COMPONENTS

This section of the long-range plan gives preliminary specifications for the instruments and courses which may be developed for the Proficiency Testing System. Later sections will discuss the potential developmental schedule and project costs. As mentioned earlier, these descriptions are examples and are subject to modification based on future decisions made by the district.

### A. Progress Assessment Component

The Progress Assessment component consists of the norm-referenced testing, the diagnostic testing battery, the writing sample and the ability checklists.

a. Norm-referenced Testing

Purpose: Identify lower achieving students; collect aggregate data for classrooms, buildings and the district; assist in making broad curriculum decisions.

Content areas: Reading (word identification skills and comprehension) and mathematics (computation, concepts, and problem solving).

Total tests: Between three and six tests, one per level, five subtests per level. (Probable situation would be one level per grade.) Alternate forms would be produced.

Grades tested: Test administered in grades 2, 3, 4, 5, 6 and 7.

Administration dates: One administration per year, in late April.

Test construction: Two reading subscales each with 20 to 50 items and three math subscales, each with 15 to 40 items, for each level. Tests will be based on district objectives and will be normed for district students. Tests will be machine scored.

Developmental notes: Existing standardized tests from commercial publishers will be examined to see if their content adequately matches the district's objectives. If the content is determined to be appropriate, that series will be used in place of a district-developed instrument. Where commercial tests are not available or appropriate, the district will sponsor development of suitable instruments.

b. Diagnostic Testing Battery

Purpose: Determine objectives not mastered by students; assist teachers in remediation and instructional planning and grouping; measure effectiveness of remedial instruction.

Content areas: Reading, mathematics and language arts. Each program area test would contain several (three to five) subtests.

Total tests: Approximately 10 subtests per level; number of levels to match the number of norm-referenced levels, probably one per grade.

Grades tested: Grades 3, 4, 5, 6, 7 and 8, including students scoring below average on the norm-referenced test given at the end of the previous year.

Administration dates: One administration per year, just prior to the beginning of the school year.

Test construction: Approximately five items will be constructed for each objective covered. Student would take diagnostic subtests in those areas in which the student received low scores on the norm-referenced testing. The test results will be reported by objective. Test will be machine scored.

Development notes: The objectives and items in the test battery will be very carefully matched to the district's curriculum objectives. Particular attention will be paid to the reading subtests; an attempt will be made to establish concurrent validity between the new diagnostic battery and the unique individualized reading diagnosis currently carried out in the district. Examples of the diagnostic test items will be made available to teachers to assist development of their own instruments.

c. Writing Sample

Purpose: Identify lower achieving students in language arts; collect aggregate data for classroom, building and district; assist in making broad curriculum emphasis decisions.

Content areas: The writing sample will be scored in subscale areas such as spelling, punctuation and grammar.

Total tests: Students will generally write on two from as many as 10 topic choices. Options will vary according to grade level.

Grades tested: The writing sample is obtained from students in grades 2, 3, 4, 5, 6 and 7.

Administration dates: One administration per year, in late April (the same time as the norm-referenced testing).

Test construction: Topics for the writing sample will be chosen based on input from teachers. Each student will perform two specified writing tasks, such as describing an object or composing a letter. However, the student will have several options from which to select an item for each task. The writing samples will be scored by district teaching staff; these staff members will receive inservice training on scoring the tests from experienced writing assessment supervisors.

Developmental notes: Depending on the preference of the district staff, objective, error-based subtests in spelling punctuation, and other areas could be added to the norm-referenced testing to replace the writing sample. While the objective tests would be easier to score and analyze, the correlation between the error-based test results and general language arts ability is not firmly

established. In addition, some language arts content (e.g., knowing parts of speech, public speaking skills) are not directly related to writing ability. Further consideration of this issue is required.

d. Ability Checklists

Purpose: To identify skills not mastered by students; assist teachers in remediation and instructional planning and grouping.

Content areas: All important skill areas taught, including some affective skills.

Grades measured: One checklist for kindergarten, one for first grade.

Administration dates: Checklists are used in early May.

Checklist construction: Teachers are asked to determine if a student's achievement of a particular skill is adequate; that is, no additional instruction is necessary. Most of the teacher judgments will be based on observations of the student over the year; some, however, will require administration of short performance items (telling time, counting, tying shoelaces, etc.) to the student.

Developmental notes: Development of these checklists will be greatly assisted by the Report of Pupil Progress forms already developed by the district. These forms are very similar in content to the proposed ability checklists.

B. User Assistance Component

The User Assistance component consists of the Objectives Manual, Inservice Workshops, and the PTS Recordkeeping System.

a. Objectives Manual

Purpose: Compile the district's Learning Objectives in an easily accessible reference document; maintain a cross-reference of test items in the PTS to district objectives.

Construction: The Objectives Handbook would consist of several thin loose-leaf notebooks, each containing a section of the district's objectives. The objectives would be divided by grade level for the elementary grades, by subject for secondary grades. The handbook might also be economically placed on microfiche, thus allowing each staff member to have a complete set of objectives.

Developmental notes: The district, through its previous development work, has established a set of objective statements that will greatly aid the construction of this handbook. It is important, however, and time consuming, to make the objective statements consistent in format and instructional scope. Such consistenty greatly facilitates subsequent test development and recordkeeping.

b. Inservice Workshops

Purpose: To familiarize district staff with the overall PTS; to instruct teachers on interpretation and use of the test information; to solicit input for improving the system; to train district staff to administer PTS instruments.

Workshop dates: One each year just prior to the opening of school; others as needed.

Content: All teachers would attend a half-day session each year to learn the general system structure and to become acquainted with instruments and processes developed in the preceding year. Teachers would also attend brief sessions covering segments of the system specifically related to their students' grade levels or subject areas. Additional brief workshops would be held as needed to train test administrators, objective review panels, and writing sample scorers.

Developmental notes: The general information workshop prepared for the staff could, if the district desired, be adapted for use with community members. Also, the district may wish to prepare a slide-tape or videotape presentation of the system for use with new faculty, parents, educational organizations and educators from outside the district.

c. Recordkeeping System

Purpose: To maintain, for examination at any time by teachers, students and parents, a record of each student's PTS test scores, remedial instruction given, and objectives needing additional instruction.

Construction: When each student enters school in the district, a permanent PTS file is started. A master chart is used to record the student's test scores on PTS instruments. Additional cards are inserted during each of the elementary grades to show objectives requiring further instruction; the cards also record remedial instruction given. Special forms are used to show student performance on the Area Competency and Survival Skills Tests.

Developmental notes: As the cost of small, self-contained computer systems drops, educational research groups are becoming more interested in the possible use of these microcomputers to

maintain elaborate student records. Instead of a paper file students would have individual cassette tapes or floppy discs. To examine a student file, the user would insert the tape or disc and select a code for the desired information. The computer system would make it somewhat easier to keep notes on student performance and instructional grouping (for example, the computer could quickly identify which students in a class had not mastered a given objective) and would allow easier compilation of building and district level performance data. While no appropriate system exists at this time, work is progressing rapidly; the costs and benefits of such systems should be investigated before recordkeeping system development begins.

C. Essential Skills Component

The Essential Skills component consists of the Essential Skills Test and the Essential Skills remedial program.

a. Essential Skills Test

Purpose: Measure student performance in relation to the most important objectives covered in the district's elementary program; collect aggregate data on district achievement.

Content areas: Reading, mathematics and language arts.

Total tests: One (with alternate forms available).

Grades tested: Grade 8, with repeat administrations given to grades 9, 10, 11 and 12.

Administration dates: Mid-May, with repeat testing opportunities in January and mid-May.

Test construction: The Essential Skills Test will consist of reading, mathematics and language arts subtests. Each subtest will cover about 10 to 15 very important terminal objectives covered in the district's elementary grades. Approximately five items will be used to cover each objective. Tests will be machine scored, with overall district scores being analyzed by interpretive panels of educators and community members. These panels would judge the adequacy of the overall performance, make recommendations for changing instructional emphasis to improve the performance, and help the test developers establish the acceptable score for student performance.

Developmental notes: The key to the efficacy of this test is the establishment of a truly essential set of skills to be measured. This process will need to have some validation by the community.

b. Remedial Program

Purpose: Give additional instruction to students whose scores on the Essential Skills subtests are not adequate.

Content areas: All three areas (reading, mathematics and language arts) covered by the test.

Grades covered: The remedial classes will consist primarily of ninth grade students; with lesser numbers of tenth, eleventh, and twelfth grade students.

Class dates: The classes would be conducted for one-semester periods. Students in the class would be retested at the end of the semester, with those still falling below the cutoff score continuing in the course for another semester.

Construction: The remedial classes would be the same length as regular classes. Instruction would be highly individualized, and the class would have a low student-teacher ratio. Diagnostic testing would be used to identify the skills each student lacked.

Developmental notes: Much of the burden for the success of these classes will rest on the ability of the remedial teachers to provide interesting and effective instruction to students deficient in the basic skills. Teaching elementary level concepts to secondary students is difficult; limited instruction resources are available and it is a challenge to make the instruction meaningful. Teachers for these classes should be chosen carefully from among the district's best educators.

D. Area Competencies Component

The Area Competencies component consists of the Area Competency Tests and the Area Minicourses.

a. Area Competency Tests

Purpose: Measure student achievement related to very important objectives in each of several subject areas.

Content areas: The content areas covered by these tests are to be determined later by the district. However, at this stage of the planning, seven general areas seem appropriate: science, social studies, health, citizenship, physical education, career education, and basic practical skills.

Total tests: One for each content area; seven total.

Grades tested: Three of the tests would be given in ninth grade, with the four remaining tests being given in tenth grade.

Administration dates: Late April and early May, and possibly other dates for repeat administrations.

Test construction: The tests will each be less than an hour in length and will have perhaps 20 to 40 questions or a lesser number of specified tasks. The questions or tasks will cover skills and concepts the district feels are very important results of the educational process. A number of these items would be applied performance test items, items in which the task is performed in a real or simulated setting. For example, the basic practical skills test would not ask pencil and paper questions about changing a flat tire or reporting a fire, but would actually ask students to change a flat tire or report a simulated fire. (Automobile mechanics and fire department dispatchers might even be consulted to determine what constitutes acceptable performance.) These applied performance items will help the testing be more meaningful to the students, and perhaps (in a few cases) even fun.

Developmental notes: The philosophy of these Area Competency Tests is that there exists a core of skills and concepts important in modern life and that this core can be identified and tested. Selection of these skills and concepts should be done carefully. It may be useful to consult with community members to verify the importance of the test content.

b. Area Minicourses

Purpose: Give additional instruction to students who received low scores on one or more Area Competency Tests.

Content areas: One minicourse would be established for each of the content areas tested; thus, about seven courses would be planned.

Grades covered: The courses would be open to any secondary student; however, classes covering the areas tested in ninth grade would be made up primarily of students who have just completed the ninth grade; the courses for the tenth grade areas would have primarily former tenth grade students.

Class dates: The minicourses would be held during the summer; each course would be about ten hours long. Each course would be given both in the day and once in the evening during each summer. The starting dates of each course would be staggered so that they would not conflict with one another.

Construction: Each minicourse would cover all of the content on the area test. Class sessions would be fairly informal, with numerous demonstrations and guest speakers. The appropriate Area Competency Test would be administered at the end of the session.

Developmental notes: The staff members selected to teach these classes should be enthusiastic and innovative. They will, for the most part, have to develop their own instructional materials. Selection of the teachers is extremely important.

E. Survival Skills Component

The Survival Skills component consists of the Survival Skills Test and the Survival Kits.

a. Survival Skills Test

Purpose: Measure student's ability to demonstrate skills important to adult life.

Content areas: The content of the Survival Skills Test is not directly related to any specific school curriculum areas. Most of the questions on the test will require the student to synthesize information from a variety of sources, including information not specifically in the curriculum.

Total tests: One (with alternate forms available), with approximately 15 subtests.

Grades tested: Grade 11, with repeat administrations given to grade 12 students as needed.

Administration dates: October, with repeat administrations in January and April.

Test construction: Pencil and paper test items will be constructed to measure the ability of students to perform important adult skills. Examples of such skills include reading installment contracts, calculating take-home pay, using transportation schedules, reading classified ads, buying or selling an automobile, and so on. The skills tested are ones for which the school has no direct curricular responsibility, but which the community feels are important for all graduates to have. The test will be constructed in subsections, each covering a group of related skills. Students will receive scores on each of the subsections.

Developmental notes: The community will have a major role both in verifying the importance of the skills to be tested and in establishing acceptable performance levels on each of the test subsections. The test, if designed properly, should be a good indication of the "coping ability" the district's graduates take with them to adult life.

b. Survival Kits

Purpose: Provide additional instruction for students whose scores on subsections of the Survival Skills Tests are not adequate.

Content areas: One Survival Kit would be developed for each subsection of the Survival Skills Test. Thus, approximately 15 kits would be developed.

Grades covered: The Survival Kits are completely ungraded, but they would be primarily used by grade 11 students, with some use by grade 12 students.

Class dates: None. The Survival Kits would be used at the discretion of individual students; students would use the kits in the school library (or other room set aside for the purpose) during lunch hours, free periods and after school.

Construction: Each of the kits would contain pamphlets, audio tapes, articles, and other materials designed for independent use by the student. The kit would cover one particular area (e.g., use of credit, or renting an apartment) and would identify a staff member in the school who could answer questions and provide further instruction. The textual portions of the kit might economically be placed on microfiche.

Developmental notes: The independent study approach described puts a heavy burden on the district staff who develop the Survival Kits to produce interesting and educationally effective materials. An inservice session on writing individualized materials may be useful.

F. Gifted and Talented Component

The benefits of the Central Valley Proficiency Testing System as described here are realized primarily by average and below average students. These students receive testing which identifies educational weaknesses and prompts instruction which eliminates those weaknesses. Students who have no deficiencies identified notice no change in their instruction. The system, as designed, should improve the performance of many students, but no improvement can be expected for the superior student.

Identifying gifted and talented students and providing appropriate instruction for them is consistently rated highly important in educational needs assessments. Yet very few districts have an adequate program to meet these needs. In part, this is due to a lack of extensive experience in the field of gifted and talented measurement, and, in part to a severe shortage of teachers with the skills necessary to provide effective instruction.

If the district proceeds with the Proficiency Testing System, it would be an excellent opportunity to evaluate the importance of providing specialized instruction for the exceptional student of both high and low ability. If it is considered important, test instruments can be developed and integrated into the PTS testing cycle.

## IV. POTENTIAL PROBLEMS IN IMPLEMENTING THE SYSTEM

From the experiences of other testing programs, several potential problems in implementing the district's Proficiency Testing Program can be identified. These problems can be avoided by careful interaction between district officials and system developers. Further, these problems will exist with any system designed to meet the Student Learning Objectives Law; indeed, the system proposed in this plan would be less susceptible to these problems than most SLO testing programs.

The potential problems include:

1. Handling the testing and remediation of students transferring into the district.
2. Integrating testing and remedial instruction with existing special programs (notably Title I programs) currently operating in the district.

3. Protecting the legal rights of students. There have been legal challenges to some testing programs. The system's developers should have access to the district's attorney.

4. The almost inevitable lower performance of minorities on the testing instruments. While differences between white and minority scores do not necessarily mean the tests are biased, it is difficult to prove the instruments are not culturally unfair. All tests should be reviewed by minority representatives.

5. Providing additional test administrations for absentees and students who do poorly on the tests for physical or emotional reasons. In addition, it is assumed that any of the district's students can, after leaving school, return to take any test in which that student received an unacceptable score. Provisions must be made for administering these tests as necessary.

6. Applying the system procedures in a meaningful way to special education students.

7. Providing test administrations for blind and deaf students.

8. Establishing public support for the system. An extensive educational innovation such as the PTS works best if community members understand and support the system. The media should be involved in letting parents know the purpose and benefits of the testing. Parents are rightfully suspicious of testing programs they do not understand and from which they do not receive results.

9. Determining in what way, if at all, award of a high school diploma should be affected by the Proficiency Testing System.

## V. DEVELOPMENTAL SCHEDULE

It will probably be four years before all components of the Central Valley Proficiency Testing System are completed. While the actual development could be done in less time by simply increasing the number of developers, the impact on the district, due to extensive pilot testing, objective and item review, training workshops and new recordkeeping requirements, would be disruptive if carried out in less than four years.

As has been mentioned before, various segments of the system can be done separately. These segments, along with their approximate minimum development times, are listed below:

| Segment | Time to Implementation |
|---|---|
| Norm-referenced testing | 21 months |
| Diagnostic Test Battery | 24 months |
| Writing sample | 4 months |
| Ability Checklists | 15 months |
| Objectives manual | 6 months |
| Essential Skills Test | 18 months |
| Area Competency Tests | 18 months |
| Survival Skills Test | 21 months |

Many of the above times are lengthened by the need to pilot test the instrument 12 months before it can be used for actual testing.

The chart on the following two pages summarizes the development schedule of the Proficiency Testing System as described in this plan.

Proposed Development Schedule

# Central Valley Proficiency Testing System

## PROGRESS ASSESSMENT COMPONENT

1. Norm-referenced test
   a. Existing tests examined (fall '78)
   b. Test selected or developed (winter '78)
   c. Piloted (spring '79)
   d. Administered (spring '80)

2. Diagnostic battery
   a. Content established (winter '78)
   b. Tests developed (spring-fall '79)
   c. Piloted (winter '79)
   d. Administered (fall '80)

3. Writing sample
   a. Developed (fall '79)
   b. Piloted (winter '79)
   c. Administered (spring '80)

4. Ability checklists
   a. Designed (winter '78)
   b. Piloted (spring '78)
   c. Revised (winter '79)
   d. Used (spring '79)

## USER ASSISTANCE COMPONENT

5. Objectives manual
   a. Input collected (fall '78)
   b. Written (spring-summer '79)
   c. Reviewed and disseminated (fall '79)

6. Inservice workshops
   a. Long range plan reviewed and public hearings held (fall-winter '78)
   b. Developed (summer '79)
   c. Presented (fall '79)

7. Recordkeeping system
   a. Designed (winter '79)
   b. Piloted (summer '80)
   c. Used (fall '80)

## ESSENTIAL SKILLS COMPONENT

8. Essential skills test
   a. Designed (winter '79)
   b. Piloted (spring '80)
   c. Administered (spring '81)

9. Remedial program
   a. Content established (summer '80)
   b. Staff selected (winter '80)
   c. Content reviewed (summer '81)
   d. Classes begun (fall '81)

## AREA COMPETENCIES COMPONENT

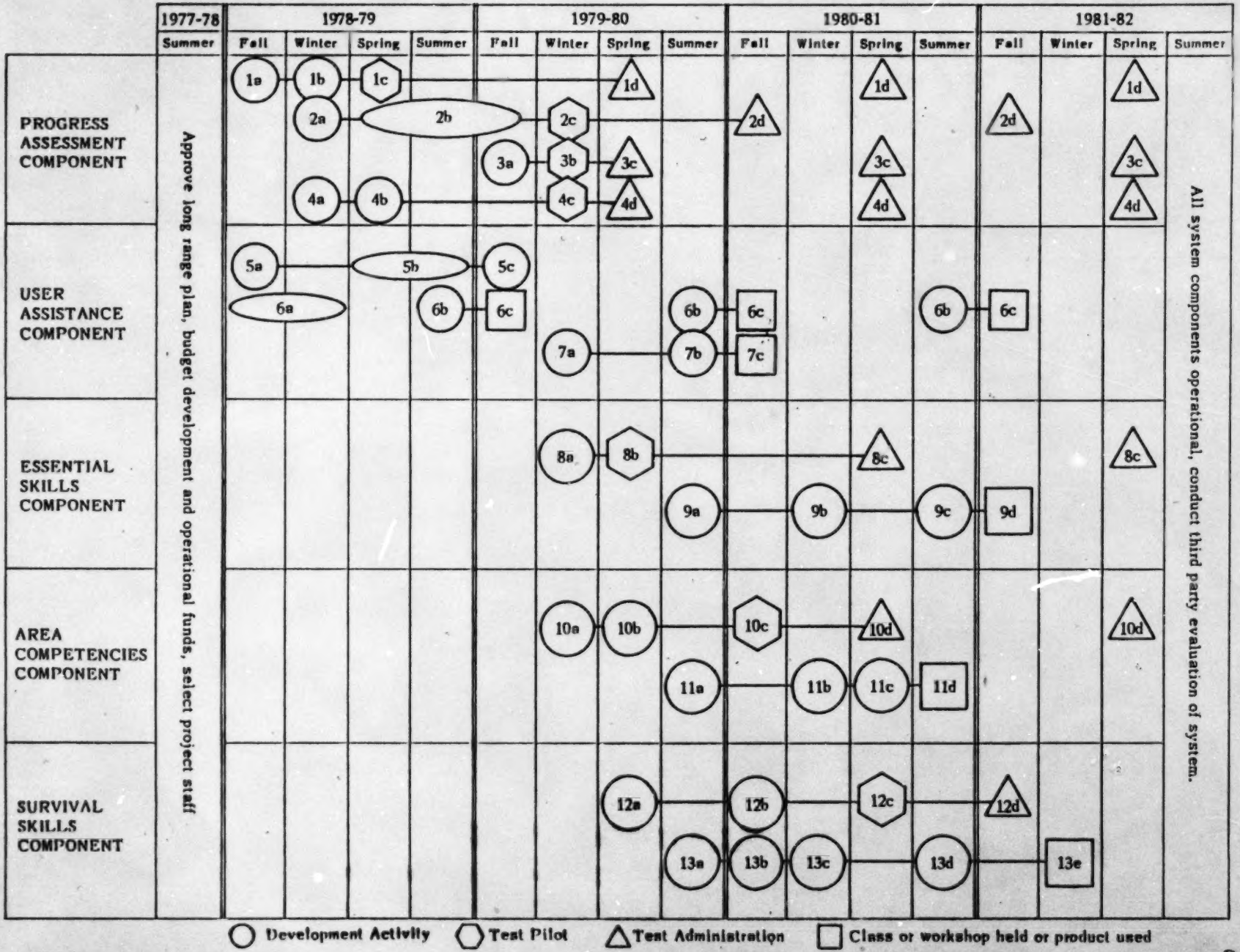
10. Area tests
    a. Content established (winter '79)
    b. Designed (spring '80)
    c. Piloted (fall '80)
    d. Administered (spring '81)

11. Area minicourses
    a. Content established (summer '80)
    b. Staff selected (winter '80)
    c. Content reviewed (spring '81)
    d. Classes begun (summer '81)

## SURVIVAL SKILLS COMPONENT

12. Survival skills test
    a. Content established (spring '80)
    b. Designed (fall '80)
    c. Piloted (spring '81)
    d. Administered (fall '81)

13. Survival kits
    a. Content established (summer '80)
    b. Format designed (fall '80)
    c. Writers selected (winter '80)
    d. Kits developed (summer '81)
    e. Used (winter '81)


1977-78
Summer
1978-79
Fall
Winter
Spring
Summer
1979-80
Fall
Winter
Spring
Summer
1980-81
Fall
Winter
Spring
Summer
1981-82
Fall
Winter
Spring
Summer
PROGRESS ASSESSMENT COMPONENT
USER ASSISTANCE COMPONENT
ESSENTIAL SKILLS COMPONENT
AREA COMPETENCIES COMPONENT
SURVIVAL SKILLS COMPONENT
Approve long range plan, budget development and operational funds, select project staff
All system components operational, conduct third party evaluation of system.
1a
1b
1c
1d
2a
2b
2c
2d
3a
3b
3c
3d
4a
4b
4c
4d
5a
5b
5c
6a
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6c
7a
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7c
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9a
9b
9c
9d
10a
10b
10c
10d
11a
11b
11c
11d
12a
12b
12c
12d
13a
13b
13c
13d
13e
Development Activity
Test Pilot
Test Administration
Class or workshop held or product used

## VI. SUMMARY

The Central Valley Proficiency Testing System is an ambitious effort to measure the educational performance of district students and improve their achievement through additional instruction tailored to each student's specific needs.

The system as described in this plan meets and goes beyond the requirements of Washington's Student Learning Objectives Law. Not only will objectives and assessment instruments be developed as required by that law, but the testing results will relate to instruction aimed at eliminating students' educational weaknesses.

This plan outlines an ambitious effort, particularly for an individual school district. However, unlike some proposed testing programs, the technology exists to design and implement each of the PTS components described. If the district does invest the effort and resources to carry out the work described in this plan, it will find itself with one of the very finest student assessment programs in the country. Perhaps more important, the district should note a definite improvement in the effectiveness of instruction and the level of student performance.